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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|---|---|---|---|
| 08/856,116 | 05/14/97 | CHEN F | AMAT/1931 |

MM21/0913

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| EXAMINER | |
|---|---|
| SOOW, B | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2814 | |

DATE MAILED: 09/13/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Advisory Action

| Application No. | Applicant(s) |
|---|---|
| 08/856,116 | Chen et al. |
| **Examiner** | **Group Art Unit** |
| Bernard Souw | 2814 |

THE PERIOD FOR RESPONSE: [check only a) or b)]

a) ☐ expires _____ months from the mailing date of the final rejection.

b) ☒ expires either three months from the mailing date of the final rejection, or on the mailing date of this Advisory Action, whichever is later. In no event, however, will the statutory period for the response expire later than six months from the date of the final rejection.

Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a), the proposed response and the appropriate fee. The date on which the response, the petition, and the fee have been filed is the date of the response and also the date for the purposes of determining the period of extension and the corresponding amount of the fee. Any extension fee pursuant to 37 CFR 1.17 will be calculated from the date of the originally set shortened statutory period for response or as set forth in b) above.

☐ Appellant's Brief is due two months from the date of the Notice of Appeal filed on _____ (or within any period for response set forth above, whichever is later). See 37 CFR 1.191(d) and 37 CFR 1.192(a).

**Applicant's response to the final rejection, filed on** *Aug 30, 2000* **has been considered with the following effect, but is NOT deemed to place the application in condition for allowance:**

☒ The proposed amendment(s):

☐ will be entered upon filing of a Notice of Appeal and an Appeal Brief.

☒ will not be entered because:

☐ they raise new issues that would require further consideration and/or search. (See note below).

☐ they raise the issue of new matter. (See note below).

☒ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.

☐ they present additional claims without cancelling a corresponding number of finally rejected claims.

NOTE: *Please see the attachment of this Advisory Action for more detailed explanation.*

☐ Applicant's response has overcome the following rejection(s):

☐ Newly proposed or amended claims _____ would be allowable if submitted in a separate, timely filed amendment cancelling the non-allowable claims.

☒ The affidavit, exhibit or request for reconsideration has been considered but does NOT place the application in condition for allowance because:
*All claims are held prima facie obvious over the cited prior arts for reasons of record.*

☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

☒ For purposes of Appeal, the status of the claims is as follows (see attached written explanation, if any):

Claims allowed: *None*

Claims objected to: *None*

Claims rejected: *1-8, 11-18, and 20-24*

☐ The proposed drawing correction filed on _____ ☐ has ☐ has not been approved by the Examiner.

☐ Note the attached Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ .

☐ Other

# ADVISORY ACTION

1. Applicants' proposed amendments of claims 1, 4, 12, and 18 under 37 CFR 1.116 (Paper # 20 : After Final) have been acknowledged, but not entered, because they would not render the claims patentable over the cited prior arts for reasons of record.

2. Applicants' traversal of the rejection of claims 1-8, 11-18, and 20-24 submitted with the Amendment E under 37 CFR 1.116 (Paper #20) has been acknowledged, but not considered persuasive.

Applicants' main argument that Taguchi's does not teach, show, or suggest removing a first barrier layer on the bottom of the feature, is rejected by the Examiner. Please see citation of Taguchi's in the Final Office Action (Paper No.19), page 4, ¶ 5.b.

Applicant's second main argument that Taguchi's does not teach, show, or suggest depositing a second barrier layer using a sputtering technique that avoids substantial deposition on the sidewalls of the feature is misleading, since neither does Applicant's invention teach such method. Applicant's lengthy description of the sputtering apparatus and method on pp. 8-12 is all conventional, and nothing in there distinguishes Applicant claimed invention from the conventional sputtering generally known in the art.

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art (i.e. conventional sputtering). If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Despite Applicant's lengthy description of the sputtering method, such a manipulative difference from conventional sputtering as known to one of ordinary skill in the art is completely absent.

3. For these reasons, claims 1-8, 11-18, and 20-24 are held *prima facie* obvious over the cited prior arts for reasons of record.

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